

Phylogenetic analysis of influenza A(H3N2) HA genes

23/24 vaccine strain in Japan

HI reference strain

September 2023

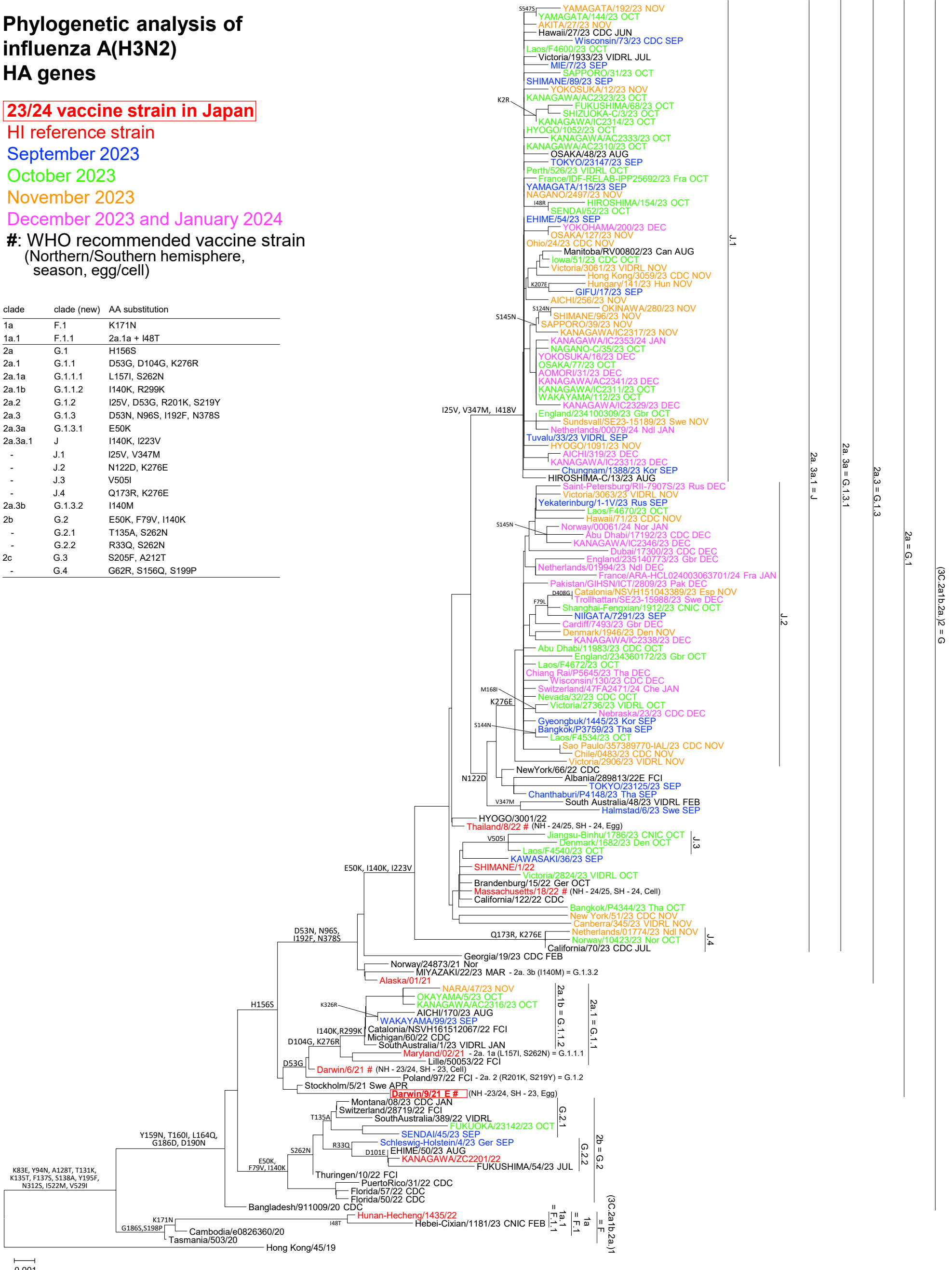
October 2023

November 2023

December 2023 and January 2024

#: WHO recommended vaccine strain
(Northern/Southern hemisphere, season, egg/cell)

clade	clade (new)	AA substitution
1a	F.1	K171N
1a.1	F.1.1	2a.1a + I48T
2a	G.1	H156S
2a.1	G.1.1	D53G, D104G, K276R
2a.1a	G.1.1.1	L157I, S262N
2a.1b	G.1.1.2	I140K, R299K
2a.2	G.1.2	I25V, D53G, R201K, S219Y
2a.3	G.1.3	D53N, N96S, I192F, N378S
2a.3a	G.1.3.1	E50K
2a.3a.1	J	I140K, I223V
-	J.1	I25V, V347M
-	J.2	N122D, K276E
-	J.3	V505I
-	J.4	Q173R, K276E
2a.3b	G.1.3.2	I140M
2b	G.2	E50K, F79V, I140K
-	G.2.1	T135A, S262N
-	G.2.2	R33Q, S262N
2c	G.3	S205F, A212T
-	G.4	G62R, S156Q, S199P



(3C.2a1b.2a.12 = G

2a = G.1

2a.3 = G.1.3

2a.3a = G.1.3.1

2a.3a.1 = J

J.2

J.1

J.3

J.4

(3C.2a1b.2a.1

= F

= F.1

= G.2.1

= G.2.2

= 2b = G.2

= 2a.1 = G.1.1

= 2a.1b = G.1.1.2

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